

## ABSTRACT OF THE DISCLOSURE

Methods and systems are disclosed for calculating the number of valid instructions in a microprocessor instruction bundle. One method advances the instructions along the pipeline and edge detects the number of valid instructions within the pipeline. Another method fetches a bundle of instructions, shifts instructions within the bundle, and edge detects the valid instructions. Still another method fetches the bundle of instructions and detects a complex instruction within the bundle. Instructions occurring after the complex instruction are shifted, and the number of valid instructions occurring after the complex instruction are edge detected.